

New Ideas to Aid Car Workers

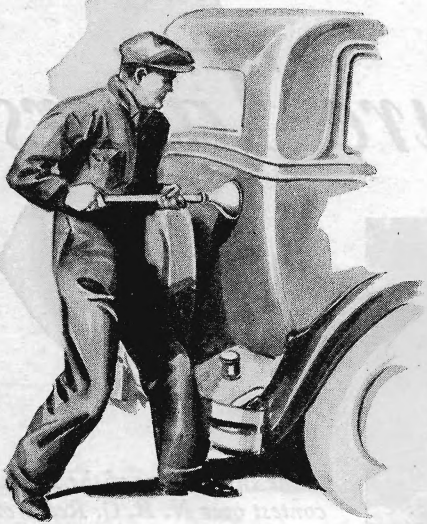


Fig. 1. With grease and a plumber's force cup, shallow dents can be taken out of body.

THE common method of removing dents in the auto body is by pounding from the inside with a soft hammer. To do this it is almost always necessary to take out a large section of the upholstery to get at the back of the dent.

Figure 1, above, shows a way to do the job that will work in some cases, and if it does a large amount of time is saved. If the dent is shallow, smear the surface with cup grease. Then apply a plumber's rubber force cup to the center of the dent and after expelling the air, give a quick jerk, which should remove the dent.

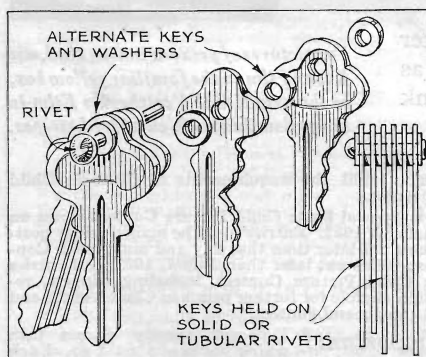


Fig. 2. Your keys won't rattle while car is in use if kept snugly on a rivet with washers.

So LONG as there are auto thieves to steal cars, it will be necessary to use keys to lock them. Keys are, however, a nuisance. Unless the auto key is kept with the rest of your keys it is easy to leave it home. On the other hand, if the keys are kept on one ring or chain, they rattle against the dash when the car is in motion and may scratch the finish.

Figure 2, above, shows a simple way to keep the keys together so they can't rattle. Each key is separated from the next on the rivet by a small washer. Do the riveting so they can be turned without too much friction. When they become loose, after being in service a while, a blow with the hammer will tighten them again.

POPULAR SCIENCE MONTHLY awards each month a prize of \$10, in addition to regular space rates, for the best idea sent in for motorists. This month's prize goes to Chris Christensen, Council Bluffs, Ia. (Figure 1). Contributions are requested from all auto mechanics.

OVERHEAD valve mechanism, when worn, has a tendency to become noisy. This applies more particularly to older models. With overhead valves, as with other types, the most annoying noise is that produced by a single valve mechanism that is a trifle farther out of adjustment or is worn more than the others. The whole mechanism can produce a considerable amount of noise without being annoying if the noise is steady and uniform.

Figure 3, below, shows the use of an auxiliary spring that can be fastened to each rocker arm to prevent play in the push rod and cam. By careful adjustment of the valve stem clearance and the use of these extra springs, the noise is reduced.

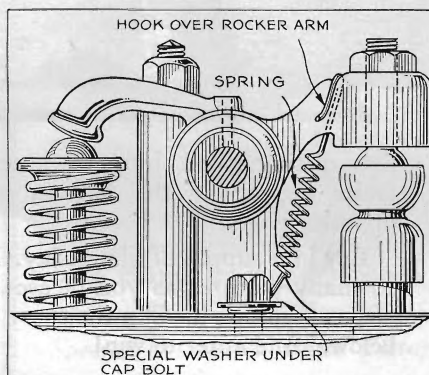


Fig. 3. An auxiliary spring fastened to each rocker arm on overhead valves will stop rattle.

INJECTING a small amount of kerosene into the air intake of the auto motor will make it smoke voluminously. This fact can be utilized in testing to find leaks. A test of this type often is extremely useful when you are troubled with exhaust gas leaking from the muffler getting into the body of the car.

With the motor running and the car outside where the light is good, squirt a little kerosene into the air intake and immediately look for leaks. Wherever there is a leak, you will see smoke coming out as shown in Fig. 4, below.

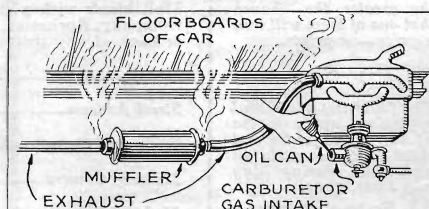


Fig. 4. Smoke from kerosene squirted into the air intake will reveal leaks in muffler.

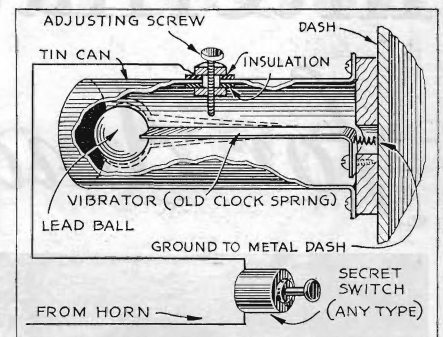


Fig. 5. This simple mechanism turns your horn into an alarm signal if car is touched.

FIGURE 5, above, shows how to build a device that will cause your horn to blow in a steady series of toots as long as it is being vibrated in any manner. If the secret switch is thrown when you leave the car, nobody can so much as step on the running board without causing the horn to start tooting a warning. The material needed to build this device consists of a tin can, a piece of spring taken from an old clock, a lead weight, a machine screw with a couple of nuts, and two leather or fiber washers. The ball shape of the lead weight is unimportant. You can flatten a piece of lead pipe and fold it over several times to make a suitable weight. The whole device can be attached to the back of the metal dash.

When you have it set up and wired as shown, turn on the switch and adjust the screw so that it does not quite make contact with the side of the spring. Then any motion of the car will cause the weight to vibrate and close the circuit.

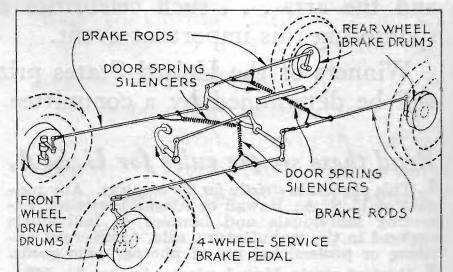


Fig. 6. Old screen door springs can be adjusted to your car to stop brake rattling.

BRAKE mechanism of the mechanical type becomes noisy when the wear has been sufficient to allow play at the clevis joints. Figure 6, above, shows the use of screen door springs or other coil springs to eliminate this rattling.

The diagram shows a suggested method of applying, but of course this can be varied to suit the particular car. The trick is to get the spring just tight enough to prevent any play at the loose joints and yet not so stiff as to cause additional wear or increase the pressure necessary to apply the brakes.

On long trips, when a rattle of this type develops, it is often possible to eliminate it for the duration of the trip by the aid of strong string with ordinary rubber bands to give the tension.